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**Emirates International School, Jumeirah**

**Design Assessment Task- Term 1**

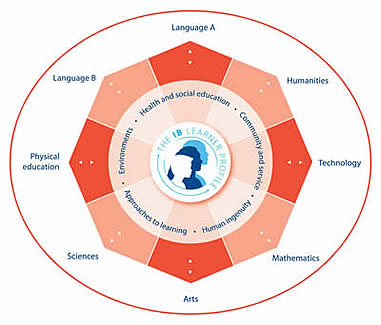
**Subject:** Information Communication Technology

**Grade:** 10 **Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Unit:** Databases

**Assessment Title**: **Task –** Creating a Database for an Organization

**Date given: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hand-in-date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**[](http://occ.ibo.org/ibis/occ/img/cm/ENG_MYP_large.jpg)**

**Grading Criteria:**

**A:** Investigate 6

**B:** Design 6

**C:** Plan 6

**D:** Create 6

**E:** Evaluate 6

**F:** Attitudes in technology 6

**Unit Question:** How can a Business or an Organisation modernize its records using Information Technology?

**Criterion A: INVESTIGATE Maximum: 6**

**Context or Scenario:**

Mr. Abdulla works at EIS-J and is in charge of ordering stationery from suppliers. Stationery can include anything from papers, document wallets to sellotape and board pens.

He deals in the main with three suppliers :

NMC , Emitec & Lee & co.

At the end of each school year he phones around the key suppliers for best current prices and keeps details in a spreadsheet of each item, along with the best price and supplier.

The school has ten faculties : English, Maths, Science , Technology and so on. Each faculty has a budget holder who is responsible for completing stationary orders. Usually there will be a major order at the start of the year and then a number of minor ones throughout the school year.

At the start of the new school year the budget holder for each faculty is allocated a sum of money for stationery based on numbers of students. Mr. Abdulla issues a stationery price list and order form to all budget holders. This has to be completed before the start of the school year.

Mr. Abdulla currently keeps all his records on a spreadsheet but thinks a database solution may improve processing. He wants to :

* maintain a database of suppliers
* maintain a database of products and best prices
* keep track of faculty ordering and improve his record keeping
* produce reports analyzing faculty expenditure
* produce reports analyzing usage e.g. paper
* use the information to better plan needs
* provide better information to faculties and management on expenditure.

 Write a Scenario to explain what you are being asked to do and how you are going to respond to their request.

 Read the Scenario you have written and decide which are the most important and relevant points contained in it. Some example questions to ask yourself could be:

1. Who is my customer?
2. What does he/she want?
3. What can I use to provide what he wants?
4. Where will he/she use the product?
5. Who (in the organisation) will use the product?
6. When will they use the product?
7. How am I going to provide a design solution?
8. What are the limits on this project? (time, computer systems, skills.)

Write a design brief based on this Scenario this should **FULLY EXPLAIN** what you are going to create.

You can now begin to **RESEARCH** your project, some topics for research could be: **(there may be more)**

* 1. What is a Database?
  2. How do I create a Database using computer software?
  3. How can it help my customer to keep records?
  4. What does my customer do with these records?
  5. Research existing means of keeping records.
  6. What would be a possible solution using the software and computer system the customer has in his organisation.
  7. What level of computing skills do the users of the database have?

**ACKNOWLEDGE** all research that is taken from sources such as the internet, books, people you interview.  
**CRITICALLY**discuss your research. (Do you agree with other people’s views) make comments on each piece of research you include in the project.  
Decide which **Area or Areas of Interaction** are relevant to this project (**see**[**AOIs**](https://sites.google.com/site/dominicstechnology/areas-of-interaction)) and **EXPLAIN FULLY** why they are linked to this project.  
Write a **DESIGN SPECIFICATION** by creating a list of the following:

1. What is **ESSENTIAL** for my Database?

2. What is **DESIRABLE** for my Database?

Design a **TEST** to be used to discover if your Database design fits the Specification this can be a set of **QUESTIONS** used to find out if your Database design will meet all the essentials and what is desirable, also say how you will use with the results of your test.

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| **Achievement Level** | **Descriptor** |
| **0** | The student does not reach a standard described by any of the descriptors given below. |
| **1-2** | * The student **states** the problem. * The student investigates the problem, **collecting** some information from at least two sources. * The student lists some specifications. |
| **3-4** | * The student **describes** the problem, **mentioning** its relevance. * The student investigates the problem, **selecting** and **analysing** information from **some** **acknowledged** sources. * The student **describes** a test to **evaluate** the product/solution against the design specification. |
| **5-6** | * The student **explains** the problem **discussing** its relevance. * The student critically investigates the problem, **evaluating** information from a **broad range** of **appropriate, acknowledged** sources. * With limited guidance the student designs tests to **evaluate** the product against the design specification. |

**Criterion B: DESIGN Maximum: 6**

* Using suitable software outline**possible**solutions.
* Choose the solution which best fits the **Specification**.
* Say **Why** your choice fits the specification.
* State how your choice links to the [**Area of Interaction**](https://sites.google.com/site/dominicstechnology/areas-of-interaction).

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| **Achievement Level** | **Descriptor** |
| **0** | * The student does not reach a standard described by any of the descriptors given below. |
| **1-2** | * The student generates **one** design, and makes **some attempt to justify** this against the design specification. |
| **3-4** | * The student generates a **few** designs. * The student **justifies** the choice of one design and fully **evaluating** this against the design specification. |
| **5-6** | * The student generates a **range** of **feasible** designs **each evaluated** against the design specification. * The student justifies the chosen design and **evaluates** it fully and critically against the design specification. * Each design is compared with the design specification. |

**Criterion C: PLAN Maximum: 6**

* Begin by producing a **Resource list** - all the things needed for your project.  
  *For example: These could be things like your computer, the software, the internet, help files, books/manuals, your diary, your teacher and even your friends to help evaluate*
* Create a **step-by-step time related plan** include resources from your list and an estimate of how long each step takes.  
  *For example: Write down each major step in the creation of your product describe the step in detail and list what resources you will need to perform the step. In order to begin PowerPoint you must first learn everything about the program you can do this by reading the manuals, watching a video or asking the teacher. Continue with all the steps you think you need and then add time estimates to each step. Check your diary to see how long you have to complete the project and which days you will be in school.*
* Use a **Gantt chart** to show your plan which shows the steps with dates and time for each step.  
  *Once you have listed all the steps you need to create a Gantt chart using MS Excel set out each step on the left side and show by colouring the boxes how long each step takes and the dates you will be doing them. This will give you an indication of what you should be doing during each day of create and will tell you if you are ahead of time, on time or behind.*
* **Evaluate the plan** by deciding which parts you will need to spend more time on or those parts you may not understand and will need more information in order to complete them.  
  *Finally look at your plan and decide which steps you need to concentrate on most. Say which steps you think will be the most difficult and therefore you will have to learn all about them first. Say if you think anyone else can follow your plan if it is clearly written and easily followed.*

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| **Achievement Level** | **Descriptor** |
| **0** | * The student does not reach a standard described by any of the descriptors given below. |
| **1-2** | * The student produces a plan that contains **some details** of the steps and/or the resources required. |
| **3-4** | * The student produces a plan that contains a number of **logical** steps that include resources and time. * The student makes some attempt to evaluate the plan |
| **5-6** | * The student produces a plan that contains a **number** of **detailed logical steps** that describe the use of resources and time. * The student critically evaluates the plan and justifies any modifications to the design. |

**Criterion D: CREATE Maximum: 6**

* **Create** your design.
* Follow your**plan** and be sure to follow the **specification**.
* Make any changes to your specification that you may find don’t fit or can be improved.
* **Test your** design to see if it is according to your specification.
* Produce printouts of any pages you believe are important.

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| **Achievement Level** | **Descriptor** |
| **0** | * The student does not reach a standard described by any of the descriptors given below. |
| **1-2** | * The student considers the plan and creates at least **part** of a product/ solution. |
| **3-4** | * The student **uses** appropriate techniques and equipment. * The student follows the plan and **mentions** any modifications made, resulting in a product/solution of **good** quality. |
| **5-6** | * The student **competently** uses appropriate techniques and equipment. * The student competently **uses** appropriate techniques and equipment. The student follows the plan and **justifies** any modifications made, resulting in a product /solution of **appropriate** quality using the resources available. |

**Criterion E: EVALUATE Maximum: 6**

* Ask your friend to**act as a user and test your database design**. Try to be honest, you are not graded on the friend´s opinions or comments but on the fact that you carried out the tests properly no matter what the results.
* Did everything look good??
* Did everything work properly can data be added through the form, does it enter the tables correctly?
* Do you need to make any improvements?
* **Evaluate** each stage of the design cycle and try to suggest improvements or further work that may be needed.
* What did you discover in relation to the **area of interaction** linked to your project did you learn anything you didn´t know before you started the project?
* Does the project answer the**unit question**? What is a database? Can you explain it better now than before you did this project, what are the advantages of a database to other methods of storing data?

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| **Achievement Level** | **Descriptor** |
| **0** | * The student does not reach a standard described by any of the descriptors given below. |
| **1-2** | * The student evaluates the product / solution **or** his or her own performance. * The student makes some **attempt to test** the product/solution. |
| **3-4** | * The student evaluates the product/solution **and** his or her own performance and suggests ways in which these could be improved. * The student **tests** the product/solution to evaluate it against the design specification. |
| **5-6** | * The student evaluates the success of the product/solution in an objective manner based on the **results of testing**, and the **views of the intended users**. * The student provides an evaluation of his or her own performance **at each stage of the design cycle** and suggests improvements. * The student provides an appropriate evaluation of the **impact** of the product /solution on life, society and /or the environment. |

**Criterion F: Attitudes in Technology Maximum: 6**

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| **Achievement Level** | **Descriptor** |
| **0** | The student does not reach a standard described by any of the descriptors given below. |
| **1-2** | The student **occasionally** displays a satisfactory standard in **one** of the aspects listed above. |
| **3-4** | The student **frequently** displays a satisfactory standard in **both** of the aspects listed above. |
| **5-6** | The student **consistently** displays a satisfactory standard in **both** of the aspects listed above. |

**Grade Boundaries**

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| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **0 - 5** |  | **6 - 9** |  | **10 - 15** |  | **16 - 21** |
|  | **22 - 26** |  | **27 - 31** |  | **32 - 36** |  | |

**Teacher feedback**

**How well has the student met the criteria for assessment?**

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| --- | --- | --- | --- | --- | --- | --- |
| **Criterion** | **A** | **B** | **C** | **D** | **E** | **F** |
| **Achieved Grade** |  |  |  |  |  |  |

**Total: \_\_\_\_\_**

**What targets can the student work towards in the future?**

**Signed** …………………………………………………………. **Date:** ………………